REMARKS/ARGUMENTS

Claims 20-45 are pending. Independent Claims 20 and 31 track Claim 1 but have been revised for clarity and to separately refer to the human (SEQ ID NO:1) and rat (SEQ ID NO: 3) sequences. These sequences are described in the specification in the paragraph bridging pages 38-39. Support for the required homology and the hybridization conditions is found on page 14, first full paragraph, and page 15, line 4 of the specification. Dependent Claims 21-24 and 32-35 also find support in the original Claim 1 and as indicated above. Claims 25-26 and 36-37 find descriptive support in the paragraph bridging pages 12-13 of the specification. Claims 27-28 and 38-39 find support in original Claims 4 and 5. The method of Claims 29 and 40 is disclosed in the specification on page 19, lines 10-13. Claims 30 and 41 find support on page 19, second paragraph, of the specification. Claims 42-43 find support in original Claims 10-11 and Claims 44-45 in original Claim 14. In view of the above, the Applicants do not believe that any new matter has been added.

Restriction/Election

The Applicants previously elected with traverse Group 1, Claims 1, 2, 4, 5, 7 and 18. These claims are directed to polynucleotides encoding a polypeptide that binds to WF00144, their complements, vectors and transformants. WF00144 is a pharmaceutically active substance described on page 2, second full paragraph of the specification. Claims 3, 6, 8-17 and 19 were withdrawn from consideration. The present claims correspond to the elected subject matter except as follows. Claims 29 and 40 are directed to a method of making a polypeptide which binds to WF00144. Claims 42-45 are directed to subject matter covered by nonelected Claims 10, 11 and 14. These claims depend from, or otherwise include the limitations of the elected claims and the Applicants respectfully request that they be rejoined now or upon an indication of allowability for a corresponding elected product claim.

Objection--Sequence Listing

The Sequence Listing was objected to as not showing the triplets corresponding to the coding region of SEQ ID NOS: 1 and 3. This objection is moot in view of the attached Substitute Sequence Listing.

Statement Regarding Sequence Listing

Applicants submit herewith a substitute Sequence Listing and the corresponding computer-readable form (CRF) of the substitute Sequence Listing. As required by 37 C.F.R. 1.821(f), the sequence information recorded in the computer-readable form (CRF) of the substitute Sequence Listing is identical to that in the paper copy of the substitute Sequence Listing. Pursuant to 37 C.F.R. 1.821(g) the Applicants state that no new matter has been introduced.

Rejection—35 U.S.C. 112, second paragraph

Claims 1, 2, 5 and 18 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. This rejection is moot in view of the cancellation of these claims.

Rejections—35 U.S.C. 112, first paragraph

Claim 1 (or Claims 1 and 18) were rejected under 35 U.S.C. 112, first paragraph, as lacking adequate enablement or description. These rejections are moot in view of the cancellation of Claims 1 and 18. They would not apply to new Claims 20 and 31 which describe polynucleotide sequences having at least 96% homology to SEQ ID NOS: 1 or 3 or which hybridize to the complements of these sequences under specified high stringent

conditions. Furthermore, the new claims are functionally limited to polynucleotides which encode polypeptides binding to WF00144.

WF00144 is a drug that specifically binds to the 35kD protein encoded by the polynucleotides of the invention and affects the production of sugar by the liver (specification, page 6, and page 24, lines 3-12).

One with skill in the art would recognize that minor variations in the polypeptide sequence that do not affect the ability of the encoded polypeptide to bind to WF00144 would be useful.

Methods for making such variants are well-known in the art and methods for using such polypeptides are disclosed, for example, on pages 24-*et seq*. of the specification. In view of the level of skill in the art, generally post-doctoral level, the Applicants respectfully submit that no undue experimentation would be required to make and use the polynucleotides of the invention. Accordingly, these rejections would not apply to the present claims.

Rejection—35 U.S.C. 102

Claim 1 was rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Tang et al., U.S. 60/336,453, and Strausberg et al., PNAS 99:16899. This rejection is moot in view of the cancellation of Claim 1. It would not apply to the new claims, which require that the claimed polynucleotide encode a polypeptide that binds to WF00144. The prior art does not disclose polynucleotides encoding polypeptides which bind to this drug.

The Applicants also respectfully request that the Office clarify whether this rejection was based on Provisional Application 60/336,453 or on Tang et al., U.S. 2004/0219521, because only a copy of the latter published application was provided and the portions of the earlier-filed provisional application pertinent to this rejection have not been pointed out. Notwithstanding the above, the Applicants acknowledge that Tang et al., U.S. 2004/0219521,

claims priority to Provisional Application 60/336,453, and itself has a filing date of April 22, 2002. The Applicants claim priority to Japan 2002-126107, filed April 26, 2002.

Tang et al., U.S. 2004/0219521, does not disclose or suggest the limited genus of polynucleotides of the present invention, nor does it suggest selecting those DNAs encoding polypeptides which bind to the drug WF00144. In fact, Tang discloses a huge genus of DNA sequences as well as sequences cross-hybridizing to this huge genus of sequences [0010]. Therefore, Tang does not disclose the present invention with sufficient specificity to amount to anticipation, specifically suggest the subgenus of polynucleotides encoding polypeptides which bind to the drug WF00144, nor provide a reasonable expectation of success about how to use the polynucleotides of the invention.

Similar considerations apply to Strausberg et al. which describes "more than 15,000 full-length human and mouse cDNA sequences", see Title.

Accordingly, this rejection would not apply to the present claims.

Rejection—35 U.S.C. 102

Claims 2 and 7 were rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Valenzuela et al., WO 2000/49134. This rejection is moot in view of the cancellation of these claims. While Valenzuela (sequence alignment available via PAIR) appears to disclose an overlapping segment of about 21 polynucleotides, there is no disclosure of an isolated fragment of SEQ ID NO: 1 or SEQ ID NO: 3 as required by the present claims.

CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. Early notification of such is earnestly requested.

Respectfully submitted,

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